

Reply comment to the IEEE USA's comments on ET 04-37.

I agree with the concerns expressed in the IEEE USA comments on the potential interference, which may be caused to licensed services by the widespread implementation of Broadband over Power Lines (BPL).

The nations power grid was designed for the transmission of 60hz electrical power and not for the portion of the radio spectrum proposed to be used by BPL. I have reservations as to the interference which may be caused to licensed services such as public safety users (for example, my local state and local police use low band VHF frequencies which are within the proposed BPL spectrum), international air and marine operations, homeland security communications and proposed solutions such as Radio Frequency Identification (RFID) systems for cargo and vehicle tracking, Department of Defense (DoD), and other Government Agencies. BPL may have the effect of jamming international broadcasts; I believe the only nation, which is now actively jamming international broadcasts is Cuba.

There is a difficulty in establishing standards for BPL emissions due to the physical nature of the power grid. Due to the large lengths and geometries involved in the power lines, and the proposed BPL frequency spectrum, the power lines act as antennas, which are many wavelengths long. This can result in radiation patterns, which can vary in the range of 40db to 60db with a change in the measurement position by only a few degrees with respect to the power lines.

The other concern is with interference to BPL by licensed users, which may cause disruptions in Internet service to BPL users.

I strongly recommend the further study of the interference effects of BPL be fully investigated and resolved before any widespread implementation takes place.

Stephen F. Bonk, P.E.
Riva, MD